Data can be collected and analyzed in four distinct areas in order to determine gaps in student learning. If you have already conducted a data retreat, you may utilize your findings from this earlier process. You'll want to discuss your data and summarize the links between the data and need for the district. This will help demonstrate a need. Several questions can be asked as a guide through this process: By disaggregating data, what can be learned about student needs? Are there trends or patterns in this data? What kind of educated guess or hypothesis can be generated based on this data?   Is there a triangulation formed by each area of data that indicates the same need?

Data should be analyzed and areas of strengths and weaknesses identified

Extensive and varied data sources substantiate need. Below are 4 areas in which data may be collected to help triangulate need. What is Triangulation of Data?

1. Student achievement data: This includes data such as standardized test scores, district-created assessments, classroom exams, alternative assessments for special education students or English language learners (ELL students), grade book summaries, and achievement data from non-core subjects.

2. Demographic data: This can include school enrollment, patterns of student transfer in and out of grade schools, how nearby neighborhoods affect school culture, transportation and its affect on student performance, socio-economic status, races, ethnicity, enrollment rate of special programs, attendance, and general information about student behavior and social problems.

3. Program data: This provides information about what is being taught to whom. It can include field trips, college attendance of graduating students, curriculum sequences, general enrollment information as well as enrollment in alternative, extracurricular, and specially funded programs. Teacher credentials and licensure, student-teacher ratio, graduation rates, post-grad information rates, data concerning instructional aides, community volunteers, strategic plans and program evaluation methods should also be included.

4. Perceptions data: This reveals the community, teacher and student view of the school or district. It can include surveys on school climate, rates of student and teacher absenteeism, tardiness, rate and number of professional development participation, harassment incidents and complaints, hotline and suggestion box information and reviews of media coverage.

Triangulation of data:
When using data to substantiate need, there should be a strong correlation between categories. Triangulating data will help to determine the level of need. Data Triangulation involves the use of different sources/categories of data/information. Triangulation involves examining data from all the categories of collection to determine if there is a common need as a result.

For example, suppose you want to evaluate a reading program, you've identified the stakeholders-such as teachers, principals, parents, students. Then you conduct

interviews or administer surveys to gain **perception data**. Once the perception data is analyzed, it shows the perception that there is a lack of achievement for reading.   The next step then would be to look at student achievement data to help further support this perception with other data source; **student achievement data**.

After examining state test standardized scores, class grades, district exam results, and other assessment measures the data shows further evidence of a need for improved reading achievement. There are now **two data categories** which support the need.

Next you might want to look at **program data** to further define the need. After examining, the after school reading program, curriculum initiative, and school improvement plans, it is determined there a lack of key strategies being taught in the elementary. A third source now has confirmed the need.

Including an examination of **demographic data** may also then help to further define the need as a cultural issue, or a socio-economic issue that will be used to determine which type of strategies would work best.

At this point you have used at least **three categories of source data** to **triangulate** the **need** for interventions to improve student reading.

Basically triangulation of data helps determine need through providing evidence of data sources rather than just through the perception of stakeholders.